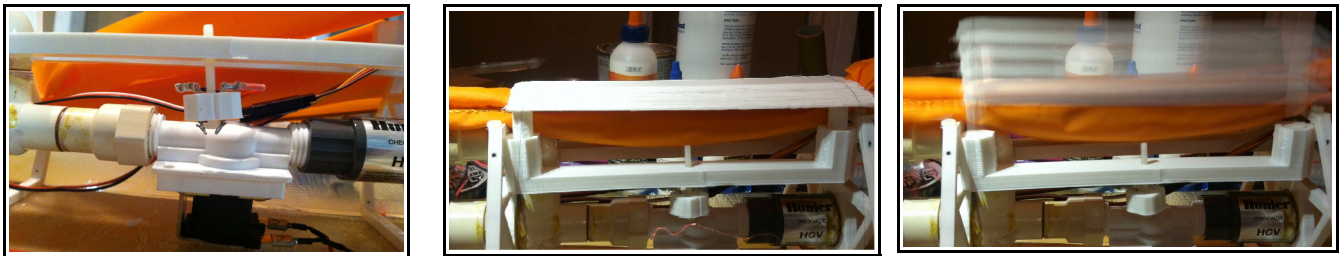


Executive Summary

This month, I continued work on the flight system. I finished the canopy and release mechanism. The canopy is made of PLA and has four post that fit into spring loaded sockets mounted on the frame. High resistance wire is used as a fuse releasing the canopy when a high current passes through the wire. The mass of the canopy and release mechanism is ~ 125 gm, less than half of my mass allotment.

Technical Stuff

This month, I continued work on the flight system. I finished the canopy and release mechanism. The canopy is made of PLA and has four post that fit into sockets mounted on the frame. Each socket has a spring. The canopy compresses the springs and is held in place by Kanthal A-1 high resistance wire. As shown in the first picture, the high resistance wire is passed through the electrodes mounted on a PLA insulator. By remote control, a high current is sent through that small section of wire causing the wire to burn through and break (middle picture). The canopy is ejected.



Shown here is just a small test section of the canopy. The canopy will cover the entire paraglider length. The mass of the canopy and release mechanism is ~ 125 gm, less than half of my final mass allotment. Adding the canopy and release mechanism to the rocket glider results in a liftoff mass of ~ 1315 gm. I just might make it to launch!

Next month, I will assemble the entire rocket glider including the fuel core. I will get a final mass of the system and determine the center of mass. Then, I will attach the paraglider to the frame. I'm not sure I'll get a launch before the end of the month but, I'm going to try.